

Amendments to Claims

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims

1. - 4. (Canceled)

5. (New) Non-contacting rotary joint for wideband transmission of digital signals between at least one first unit and at least one second unit, said first unit comprising:

a data source for generating a serial data stream;

a transmitter for generating electrical signals from said serial data stream from said data source;

a transmitter conductor array for conducting said electrical signals generated by said transmitter; and

said second unit comprising:

a receiving antenna for tapping electrical signals in the near field of said transmitter conductor array;

a receiver for receiving the signals tapped by said receiving antenna; and

a data sink for subsequent processing of the signals received by said receiver;

wherein at least one filter is provided, assigned to at least one of said transmitter or said receiver, for adaptation to transmission characteristics of a data transmission path between said transmitter and said receiver that are rotatable relative to each other along the rotary joint.

6. (New) Device according to claim 5, wherein said filter can be dynamically adjusted.
7. (New) Device according to claim 5, wherein a microcontroller is provided for controlling and diagnosing the device.
8. (New) Device according to claim 5, wherein the device is self-learning and dynamically adapts itself to respective conditions of operation.